



INDONESIA
OpenInfra Days

02.11.2019 | Surabaya, Indonesia

GitLab CI/CD Android

Build Android apk with GitLab CI/CD Send Telegram File

Fachrival Fahmy - Talent Manager NolSatu
fahmy@btech.id



What are CI and CD ?

Pipeline: What are they ?

CI What are you ?



The main thing about Continuous Integration is merging Features without breaking
your solution



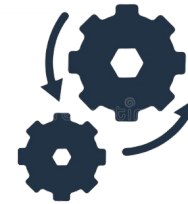
Code



Test



Merge

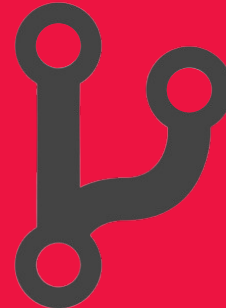


Build



Deploy

Steps



No way to merge without testing

What are some of the benefit of CI/CD Strategy ?



Increased speed of innovation and ability to compete in the marketplace



Great ability to attract and retain talent



Code in production is making money instead of sitting in a queue waiting to be deployed



Higher quality code and operations due to specialization

What a benefit Build Android apk send Telegram file use GitLab CI/CD ?



For QA, you don't need to request the latest file to Android



For clients or members who are not related to the developer process can just send from PM / PO to the client / non-member



In the telegram group there can be a history file

.gitlab-ci.yml

stages:

- check
- build
- deploy
- cleanup_build

.gitlab-ci.yml

```
check:  
  stage: check  
  script:  
    - ./gradlew check
```

.gitlab-ci.yml

```
script:
  - export BUILD_NUMBER=$CI_JOB_ID
  - mv ./app/ci-build.gradle ./app/build.gradle || true
  - ./gradlew -g /cache/.gradle clean assembleDevDebug --parallel --stacktrace
--no-daemon -x lint --warning-mode all
  - cd app/build/outputs/apk/dev/debug/
  - export FILENAME=$(ls)
  - curl --data chat_id=$TELEGRAM_GROUP_ID --data-urlencode text="[Android CI]
Build from $CI_COMMIT_REF_NAME branch Done | ${CI_COMMIT_SHA:0:8} -
$CI_COMMIT_TITLE | Halo guys, APK terbaru sudah bisa dicoba, silahkan dicoba
semuanya :)" https://api.telegram.org/${TELEGRAM_TOKEN}/sendMessage
  - curl -F chat_id=${TELEGRAM_GROUP_ID} -F document=@${FILENAME}
https://api.telegram.org/${TELEGRAM_TOKEN}/sendDocument
```

.gitlab-ci.yml

artifacts:

expire_in: 2 days

paths:

- app/build/outputs/apk/dev/debug/*.apk
- app/build/intermediates/manifests/full/dev/debug/*.xml

only:

- develop

cache:

key: "\$CI_JOB_STAGE-\$CI_COMMIT_REF_SLUG"

paths:

- .gradle/wrapper
- .gradle/caches

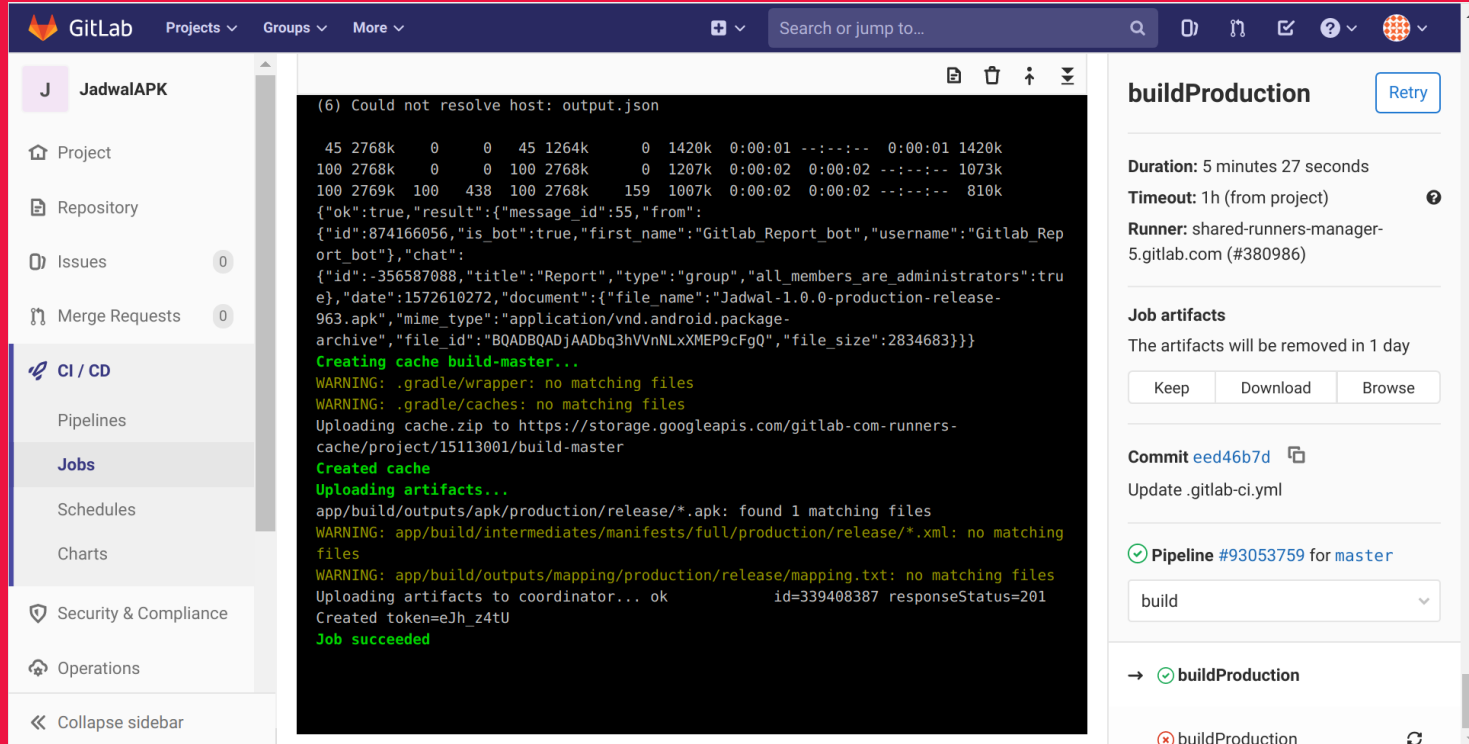
.gitlab-ci.yml

```
build_job_error:
  stage: cleanup_build
  script:
    - 'echo "Cleaning Up All Cache"'
    - 'echo "${CI_PROJECT_NAME} ${CI_PROJECT_NAMESPACE}'
#   - ls -a /cache/${CI_PROJECT_NAMESPACE}/${CI_PROJECT_NAME}
#   - rm -rf /cache/${CI_PROJECT_NAMESPACE}/${CI_PROJECT_NAME}/*
    - curl --data chat_id=$TELEGRAM_GROUP_ID --data-urlencode text="[Android CI]
Build from ${CI_COMMIT_REF_NAME} branch Failed, cek pipelines :( | $
${CI_COMMIT_SHA:0:8} - ${CI_COMMIT_TITLE}" https://api.telegram.org/$
${TELEGRAM_TOKEN}/sendMessage
  when: on_failure
```

.gitlab-ci.yml

```
build_job_error:
  stage: cleanup_build
  script:
    - 'echo "Cleaning Up All Cache"'
    - 'echo "$CI_PROJECT_NAME" "$CI_PROJECT_NAMESPACE"'
#   - ls -a /cache/${CI_PROJECT_NAMESPACE}/${CI_PROJECT_NAME}
#   - rm -rf /cache/${CI_PROJECT_NAMESPACE}/${CI_PROJECT_NAME}/*
    - curl --data chat_id=$TELEGRAM_GROUP_ID --data-urlencode text="[Android CI]
Build from $CI_COMMIT_REF_NAME branch Failed, cek pipelines :( | $
${CI_COMMIT_SHA:0:8} - $CI_COMMIT_TITLE" https://api.telegram.org/$
${TELEGRAM_TOKEN}/sendMessage
  when: on_failure
```

Result



The screenshot displays the GitLab CI/CD interface for a project named "JadwalAPK". The left sidebar shows navigation options: Project, Repository, Issues, Merge Requests, CI / CD (selected), Pipelines, Jobs, Schedules, Charts, Security & Compliance, Operations, and Collapse sidebar. The main area shows the details of a job named "buildProduction".

buildProduction Retry

Duration: 5 minutes 27 seconds
Timeout: 1h (from project)
Runner: shared-runners-manager-5.gitlab.com (#380986)

Job artifacts
The artifacts will be removed in 1 day
[Keep](#) [Download](#) [Browse](#)

Commit eed46b7d [🔗](#)
Update .gitlab-ci.yml

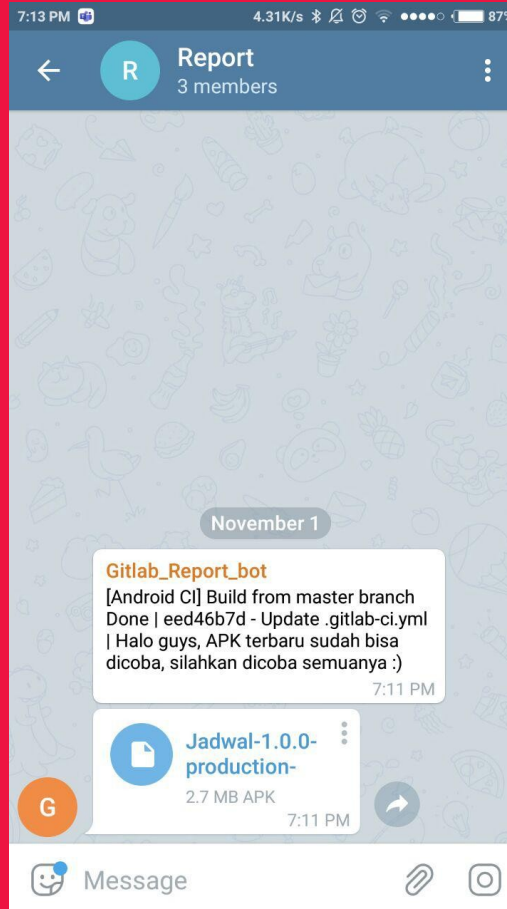
🟢 **Pipeline #93053759** for master
[build](#)

→ 🟢 **buildProduction**
🔴 **buildProduction** 🔄

```
(6) Could not resolve host: output.json

 45 2768k   0   0  45 1264k   0 1420k 0:00:01 --:--:-- 0:00:01 1420k
100 2768k   0   0 100 2768k   0 1207k 0:00:02 0:00:02 --:--:-- 1073k
100 2769k 100  438 100 2768k  159 1007k 0:00:02 0:00:02 --:--:--  810k
{"ok":true,"result":{"message_id":55,"from":{"id":874166056,"is_bot":true,"first_name":"Gitlab_Report_bot","username":"Gitlab_Report_bot"},"chat":{"id":-356587088,"title":"Report","type":"group","all_members_are_administrators":true},"date":1572610272,"document":{"file_name":"Jadwal-1.0.0-production-release-963.apk","mime_type":"application/vnd.android.package-archive","file_id":"BQADBQADjAADbq3hVVnNLxXMEP9cFgQ","file_size":2834683}}}
Creating cache build-master...
WARNING: .gradle/wrapper: no matching files
WARNING: .gradle/caches: no matching files
Uploading cache.zip to https://storage.googleapis.com/gitlab-com-runners-cache/project/15113001/build-master
Created cache
Uploading artifacts...
app/build/outputs/apk/production/release/*.apk: found 1 matching files
WARNING: app/build/intermediates/manifests/full/production/release/*.xml: no matching files
WARNING: app/build/outputs/mapping/production/release/mapping.txt: no matching files
Uploading artifacts to coordinator... ok          id=339408387 responseStatus=201
Created token=eJh_z4tU
Job succeeded
```


Result



Thank you!